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SEQUENCE L.

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Sims, John
                 DuBose, Robert
                 Sims, John E
                 Youakim, Adel
                 Hasel, Karl W
                 Hilbush, Brian S
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30

25

20

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<211> 98

<212> PRT

<213> Homo sapiens

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Glu Phe Gly Thr Arg Gln Gln Gln Gln Lys Lys Thr Glu His Leu 20 25 30

His Ile Thr Asp Thr Gln Phe Lys Lys Gln Asn Ile Thr Ala Pro Ser 35 40 45

Arg Ile Phe Leu Gly Ser Leu Pro Ser Leu Leu Thr Pro Asp Tyr Lys 50 55 60

Gln Pro Pro Pro Ile Ser Pro Asp Ile Val Leu Tyr Glu Ser Ser Ser 65 70 75 80

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<213> Homo sapiens

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Ser Leu Ile Leu Glu Lys Ser Gln Asn Trp Ser Ser Gln Lys Met Asp 20 25 30

His Ile Leu Ile Cys Cys Val Cys Leu Gly Asp Asn Ser Glu Asp Ala 35 40 45

Asp Glu Ile Ile Gln Cys Asp Asn Cys Gly Ile Thr Val His Glu Gly 50 60

Cys Tyr Gly Val Asp Gly Glu Ser Asp Ser Ile Met Ser Ser Ala Ser 65 70 75 80

Glu Asn Ser Thr Glu Pro Trp Phe Cys Asp Ala Cys Lys Cys Gly Val 85 90 95

Ser Pro Ser Cys Glu Leu Cys Pro Asn Gln Asp Gly Ile Phe Lys Glu 100 105 110

Thr Asp Ala Gly Arg Trp Val His Ile Val Cys Ala Leu Tyr Val Pro 115 120 125 Gly Val Ala Phe Gly Asp Ile Asp Lys Leu Arg Pro Val Thr Leu Thr Glu Met Asn Tyr Ser Lys Tyr Gly Ala Lys Glu Cys Ser Phe Cys Glu Asp Pro Arg Phe Ala Arg Thr Gly Val Cys Ile Ser Cys Asp Ala Gly Met Cys Arg Ala Tyr Phe His Val Thr Cys Ala Gln Lys Glu Gly Leu Leu Ser Glu Ala Ala Ala Glu Glu Asp Ile Ala Asp Pro Phe Phe Ala Tyr Cys Lys Gln His Ala Asp Arg Leu Asp Arg Lys Trp Lys Arg Lys Asn Tyr Leu Ala Leu Gln Ser Tyr Cys Lys Met Ser Leu Gln Glu Arg Glu Lys Gln Leu Ser Pro Glu Ala Gln Ala Arg Ile Asn Ala Arg Leu Gln Gln Tyr Arg Ala Lys Ala Glu Leu Ala Arg Ser Thr Arg Pro Gln Ala Trp Val Pro Arg Glu Lys Leu Pro Arg Pro Leu Thr Ser Ser Ala Ser Ala Ile Arg Lys Leu Met Arg Lys Ala Glu Leu Met Gly Ile Ser Thr Asp Ile Phe Pro Val Asp Asn Ser Asp Thr Ser Ser Ser Val Asp Gly Arg Arg Lys His Lys Gln Pro Ala Leu Thr Ala Asp Phe Val Asn Tyr Tyr Phe Glu Arg Asn Met Arg Met Ile Gln Ile Gln Glu Asn Met Ala Glu Gln Lys Asn Ile Lys Asp Lys Leu Glu Asn Glu Gln Glu Lys Leu His Val Glu Tyr Asn Lys Leu Cys Glu Ser Leu Glu Glu Leu Gln Asn Leu Asn Gly Lys Leu Arg Ser Glu Gly Gln Gly Ile Trp Ala Leu Leu Gly Arg Ile Thr Gly Gln Lys Leu Asn Ile Pro Ala Ile Leu Arg Ala Pro Lys Glu Arg Lys Pro Ser Lys Lys Glu Gly Gly Thr Gln Lys

Thr Ser Thr Leu Pro Ala Val Leu Tyr Ser Cys Gly Ile Cys Lys Lys 435 440 445

Asn His Asp Gln His Leu Leu Leu Cys Asp Thr Cys Lys Leu His 450 455 460

Tyr His Leu Gly Cys Leu Asp Pro Pro Leu Thr Arg Met Pro Arg Lys 475 475 480

Thr Lys Asn Ser Tyr Trp Gln Cys Ser Glu Cys Asp Gln Ala Gly Ser 490 495

Ser Asp Met Glu Ala Asp Met Ala Met Glu Thr Leu Pro Asp Gly Thr 500 510

Lys Arg Ser Arg Arg Gln Ile Lys Glu Pro Val Lys Phe Val Pro Gln 515 520 525

Asp Val Pro Pro Glu Pro Lys Lys Ile Pro Ile Arg Asn Thr Arg Thr 530 540

Arg Gly Arg Lys Arg Ser Phe Val Pro Glu Glu Glu Lys His Glu Glu 545 550 555 560

Arg Val Pro Arg Glu Arg Arg Gln Arg Gln Ser Val Leu Gln Lys Lys 565 570 575

Pro Lys Ala Glu Asp Leu Arg Thr Glu Cys Ala Thr Cys Lys Gly Thr 580 585 590

Gly Asp Asn Glu Asn Leu Val Arg Cys Asp Glu Cys Arg Leu Cys Tyr 595 600 605

His Phe Gly Cys Leu Asp Pro Pro Leu Lys Lys Ser Pro Lys Gln Thr 610 620

Gly Tyr Gly Trp Ile Cys Gln Glu Cys Asp Ser Ser Ser Ser Lys Glu 625 630 635 640

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Glu Gln Lys Asn Pro Lys Lys 660

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<211> 372

<212> PRT

<213> Homo sapiens

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20 25 30

Asp Ser Asn Met Lys Arg Glu Gln Pro Arg Glu Arg Pro Arg Ala Trp Asp Tyr Pro His Gly Leu Val Gly Leu His Asn Ile Gly Gln Thr Cys Cys Leu Asn Ser Leu Ile Gln Val Phe Val Met Asn Val Asp Phe Thr Arg Ile Leu Lys Arg Ile Thr Val Pro Arg Gly Ala Asp Glu Gln Arg Arg Ser Val Pro Phe Gln Met Leu Leu Leu Leu Glu Lys Met Gln Asp Ser Arg Gln Lys Ala Val Arg Pro Leu Glu Leu Ala Tyr Cys Leu Gln Lys Cys Asn Val Pro Leu Phe Val Gln His Asp Ala Ala Gln Leu Tyr Leu Lys Leu Trp Asn Leu Ile Lys Asp Gln Ile Thr Asp Val His Leu Val Glu Arg Leu Gln Ala Leu Tyr Met Ile Arg Val Lys Asp Ser Leu Ile Cys Val Asp Cys Ala Met Glu Ser Ser Arg Asn Ser Ser Met Leu Thr Leu Pro Leu Ser Leu Phe Asp Val Asp Ser Lys Pro Leu Lys Thr Leu Glu Asp Ala Leu His Cys Phe Phe Gln Pro Arg Glu Leu Ser Ser Lys Ser Lys Cys Phe Cys Glu Asn Cys Gly Lys Lys Thr Arg Gly Lys Gln Val Leu Lys Leu Thr His Leu Pro Gln Thr Leu Thr Ile His Leu Met Arg Phe Ser Ile Arg Asn Ser Gln Thr Arg Lys Ile Cys His Ser Leu Tyr Phe Pro Gln Ser Leu Asp Phe Ser Gln Ile Leu Pro Met Lys Arg Glu Ser Cys Asp Ala Glu Glu Gln Ser Gly Gly Gln Tyr Glu Leu Phe Ala Val Ile Ala His Val Gly Met Ala Asp Ser Gly His Tyr Cys

Val Tyr Ile Arg Asn Ala Val Asp Gly Lys Trp Phe Cys Phe Asn Asp

325 330 335

Ser Asn Ile Cys Leu Val Ser Trp Glu Asp Ile Gln Cys Thr Tyr Gly 340 345 350

Asn Pro Asn Tyr His Trp Gln Glu Thr Ala Tyr Leu Leu Val Tyr Met 355 360 365

Lys Met Glu Cys 370

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<211> 71

<212> PRT

<213> Homo sapiens

<400> 28

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Phe Ile Leu Glu Ser Asn Leu Thr Asn Val Met Lys Val Val Arg Leu 20 25 30

Phe Ile Lys Cys Pro Cys Leu Trp Gly His Glu Lys Ile His Thr Glu
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Ser Ile Lys Asn Val Leu Asn Met Glu Arg Pro Leu Ser Asn Ser Asp 50 55 60

Val Met Lys Val Val Phe 65 70

<210> 29

<211> 302

<212> PRT

<213> Homo sapiens

<400> 29

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Lys Asp Gly His Pro Leu Thr Ser Ser Leu Lys Ile Pro Thr Ala Ser 20 25 30

Gln Gly Ser Ala Pro Cys Arg Ser Lys Val Gly Val Gly Leu Gly Glu 35 40 45

Met Leu Pro Ile Phe Gln Gly Leu Leu Cys Phe Trp Ser Pro Gly Asn 50 60

Arg Cys Cys Leu Glu Leu Trp Arg Glu Gly Phe His Pro Ala Pro Thr 65 70 75 80

Ile Pro Leu Leu Phe His Thr Leu Ala Cys Gly Trp Ser Leu Thr Gly
85 90 95

Leu Val Arg Val Ala Cys Asp Leu Arg Leu Leu Val Pro Gly His Phe 100 105 110

Trp Asn Phe Gly Lys Met Cys Cys Phe Ala Ser Gly Arg Leu Tyr Leu 115 120 125

Val Ala Gly Thr Leu Cys Pro Gln His Thr Phe Phe Cys Asp Ser Arg 130 135 140

Gln Lys Gly Gln Met Gln Lys Gln Asn Gly Gly Lys Ala Val Asp Glu 145 150 155 160

Arg Gln Leu Phe His Gly Thr Ser Ala Ile Phe Val Asp Ala Ile Cys 165 170 175

Gln Gln Asn Phe Asp Trp Arg Val Cys Gly Val His Gly Thr Ser Tyr 180 185 190

Gly Lys Gly Ser Tyr Phe Ala Arg Asp Ala Ala Tyr Ser His His Tyr 195 200 205

Ser Lys Ser Asp Thr Gln Thr His Thr Met Phe Leu Ala Arg Val Leu 210 220

Val Gly Glu Phe Val Arg Gly Asn Ala Ser Phe Val Arg Pro Pro Ala 225 230 235 240

Lys Glu Gly Trp Ser Asn Ala Phe Tyr Asp Ser Cys Val Asn Ser Val 245 250 255

Ser Asp Pro Ser Ile Phe Val Ile Phe Glu Lys His Gln Val Tyr Pro 260 265 270

Glu Tyr Val Ile Gln Tyr Thr Thr Ser Ser Lys Pro Ser Val Thr Pro 275 280 285

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<212> PRT

<213> Homo sapiens

<400> 30

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Leu Pro Tyr Gly Phe Arg Thr Cys Gln Pro His Asn Ser Leu Lys
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<210> 31

<211> 95

<212> PRT

<213> Homo sapiens

<400> 31

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Val Ala Leu Val Lys Lys Asp Lys Pro Glu Lys Glu Leu Lys Ala Phe 35 40 45

Cys Ala Asp Gln Leu Asp Val Phe Leu Gln Lys Glu Thr Ser Gly Phe 50 60

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Leu Glu Pro Val Lys Pro Glu Pro Lys Pro Leu Ala Gln Glu Lys 85 . 90 95

<210> 32

<211> 261

<212> PRT

<213> Homo sapiens

<400> 32

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Leu Leu Phe Leu Pro Pro Leu Leu Leu Leu Leu Asp Val Pro Thr 20 25 30

Ala Ala Val Gln Ala Ser Pro Leu Gln Ala Leu Asp Phe Phe Gly Asn 35 40 45

Gly Pro Pro Val Asn Tyr Lys Thr Gly Asn Leu Tyr Leu Arg Gly Pro 50 60

Leu Lys Lys Ser Asn Ala Pro Leu Val Asn Val Thr Leu Tyr Tyr Glu 65 70 75 80

Ala Leu Cys Gly Gly Cys Arg Ala Phe Leu Ile Arg Glu Leu Phe Pro 85 90 95

Thr Trp Leu Leu Val Met Glu Ile Leu Asn Val Thr Leu Val Pro Tyr 100 105 110

Gly Asn Ala Gln Glu Gln Asn Val Ser Gly Arg Trp Glu Phe Lys Cys 115 120 125

Gln His Gly Glu Glu Cys Lys Phe Asn Lys Val Glu Ala Cys Val 130 135 140

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Glu Glu Phe Glu Asp Met Glu Arg Ser Leu Pro Leu Cys Leu Gln Leu 165 170 175

Tyr Ala Pro Gly Leu Ser Pro Asp Thr Ile Met Glu Cys Ala Met Gly 180 185 190

Asp Pro Gly Met Gln Leu Met His Ala Asn Ala Gln Arg Thr Asp Ala 195 200 205

Leu Gln Pro Pro His Glu Tyr Val Pro Trp Val Thr Val Asn Gly Lys 210 215 220

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Ser Val Ser Glu Lys

18